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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/527,960

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23117 7590 02/20/2008  
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EXAMINER

FAHERTY, COREY S

ART UNIT

PAPER NUMBER

2183

MAIL DATE

DELIVERY MODE

02/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/527,960	<b>Applicant(s)</b> PIRY ET AL.	
	<b>Examiner</b> COREY S. FAHERTY	<b>Art Unit</b> 2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01/08/2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 4-6 and 10-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is in response to the reply filed on 01/08/2008.
2. Claims 1-12 are pending in the application and have been examined.

#### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 2 and 8 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. Claims 2 and 8 recite the limitation “a new value  $Rd_i$  given by  $(\text{inverse}(X_i \text{ XOR } Y_i)) \text{ XOR } (\text{a value of } Rd_i \text{ currently stored})$ ”. Because there is no requirement in the claim that the “value of  $Rd_i$  currently stored” is the value stored in one of the “three further registers”, the claim will not necessarily have the intended effect of masking the register-writing activity, and is therefore inoperative. Clarification of the claim language such that the claim more specifically states the intended invention is required.

In response to this rejection, applicant has stated that “it is clear that the value stored within the three further registers is a new value  $Rd_i$  given by the exclusive OR of the value of  $Rd_i$  currently stored and the inverse of  $(X_i \text{ XOR } Y_i)$ .” However, applicant appears to be reading limitations into the claim that are not actually recited in the claim. Specifically, there does not appear to be any requirement in the claim that the new value of  $Rd_i$  be stored in any of the three further registers. The argument is therefore not persuasive.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1, 3, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pommet (U.S. Patent 6,424,196).

8. Regarding claims 1 and 7, Pommet discloses an apparatus for processing data [abstract], said apparatus comprising: a data processing register operable to store a data value [col. 1, lines 58-62; a flip-flop holds data]; a register writing circuit operable to store a data value to said data processing register [col. 1, lines 58-62; data is stored into the flip-flop]; and three or more further registers [col. 1, lines 58-59; a register contains multiple flip-flops]; wherein when said register write circuit writes a data value to said data processing register, said register write circuit also writes data values to three or more further registers such that a fixed number of bits within said data processing register and said three or more further registers as a whole transition from high to low and from low to high irrespective of what data value is being written to said data processing

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register and what data value was previously stored within said data processing register [col. 1 lines 58-62; data is written to multiple flip-flops at a time when data is written to a register; col. 2, lines 7-10; when data is written to a register, or multiple flip-flops, the number of switching events that occurs is always constant, because a switch occurs regardless of the data being written and the data that was previously stored].

Pomet does not explicitly disclose that a register contains three or more flip-flops. However, such registers are ubiquitous in processor design and their inclusion in the system of Pomet would have been obvious to a person of ordinary skill in the computer arts.

9. Regarding claims 3 and 9, Pomet discloses apparatus as claimed in claim 1, wherein said data processing register is one of a plurality of data processing registers of a register bank [col. 1, lines 58-62; a register contains multiple flip-flops].

### ***Response to Arguments***

10. Applicant's arguments filed 01/08/2008 have been fully considered but they are not persuasive.

11. First, applicant argues that Pomet does not disclose a register writing circuit but rather only discloses a data processing register. The examiner's position is that the data processing register itself constitutes a register writing circuit because the data processing register is used in writing data to itself. The argument is therefore not persuasive.

12. Next, applicant argues that Pomet does not teach that the number of bits switching from high to low and the number of bits switching from low to high are fixed. Rather, applicant argues, Pomet only discloses that the total number of bits switching is fixed. The examiner's

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position is that applicant is reading the claimed limitation too narrowly and that the teaching of Pommet does anticipate the claim language as it is currently written. Specifically, claim 1 currently recites "such that a fixed number of bits" ... "transition from high to low and from low to high". Applicant's arguments seem to imply that this limitation requires that both the number of bits that switch from high to low is fixed and the number of bits that switch from low to high is fixed. However, that is not what the claim recites. The claim recites only that "a fixed number" of high to low and low to high transitions is fixed. There is no recitation in the claim that the numbers of both types of transitions both have to be fixed. The present claim language only requires that the *total* number of transitions must be fixed. As pointed out by applicant, this is exactly what Pommet discloses. The argument is therefore not persuasive.

#### ***Allowable Subject Matter***

13. Claims 4-6 and 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to COREY S. FAHERTY whose telephone number is (571)270-1319. The examiner can normally be reached on Monday-Thursday and every other Friday, 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (571) 272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eddie P Chan/  
Supervisory Patent Examiner, Art Unit 2183

Corey S Faherty  
Examiner  
Art Unit 2183

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